



## SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1966

A NON-PROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED  
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

### W6IFE Newsletter

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The **3 August 2000** meeting of the SBMS will be planning for the first week of the contest. The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway) in Corona, CA at 1900 hours local time on the first Thursday of each month. Check out the SBMS web site at <http://www.ham-radio.com/sbms/>.

Last meeting President Doug, K6JEY gave a short talk on keeping your body happy while out doing you mountain top contesting. Doug's handout is included in this newsletter. Bill, WA6QYR had some pictures of SBMS operators out on hilltops over the past 5 years showing different rigs and sites. Bill's handout is also included. Thanks guys. A number of attendees added their experiences to the discussion of keeping happy on hilltops. Welcome to visitor Rich Arnold, KA6SNO of Victorville. 19 people present.

SBMS Prez Sez, My oldest daughter was visiting last weekend from Seattle and we were going over lots of pictures of the both of the family and us. It came to me that if she and I hadn't remembered the context of the pictures or what was going on at the time, they would loose a lot of their meaning. SoŠ.

As we get prepared for the 10 GHz and up contest, I'd like you to think about one more thing. I'd like to collect a word picture from as many people who can offer them of something that happened during the contest; even if it is only indirectly related to operating. What I mean is, remember something that went on and write about it. If you have a photo as well that would help. I'd like to get copies of what you write and photos and put it in an issue of the Reflector in the fall. It is really for two reasons: It gives the club a deeper understanding of what has been going on and people's experiences, and it will give you, and people you share your experiences with, a deeper understanding of what you were doing.

Here's an experience I was thinking about from two years ago.

To a lot of people me telling them about driving around in the middle of the Mojave in the middle of the summer making radio contacts sound boring or weird. However my word picture is about how beautiful it was. It was very exciting for me to get so far away from people that I couldn't even see any of them. I almost was too far to recognize houses and cars. I was on several hill top locations where it was just me and the car full of gear, the wind and views in every direction. It was barren and rugged. I was still out operating at dusk and got to watch the sun change the color of everything a million times. It was nice to just sit and have a soda and watch the view for a while.

A lot of highway 395 is pretty narrow and very un-freeway-like. However, to get to the top of one hill, I had to get off of the highway and take a semi-paved road to a dirt road. It took a little figuring, but the semi-paved road was the original 395 that had been abandoned. When I got done operating, I went back to it and drove down a twisty canyon on it for quite a while. Even new it was probably pretty slow and rough. I came away with a new respect for the newer road. 73's Doug

### **Scheduling-**

5-6 August UHF contest

19-20 August 10 GHz and Up contest first half

7 September 24 GHz talk

9-10 September VHF contest

16-17 September 10 GHz and Up contest second half

5 October W0EOM 24 to 120 GHz gear

2 November Nanusawa's gear

7 December 1296 EME

### **Wants and Gots for Sale**

Want 15 GHz brick Oscillator with oven Doug, K6JEY 562-424-3737.

For Sale 18 inch DSS dishes w/o mount hardware John KJ6HZ 714-761-0242.

Activity reported at the July 2000 SBMS meeting- Dave, WA6CGR worked 23 stations on 9 bands from Heaps Pk during the June contest, has completed the portable 10 GHz \_ w station and is collecting 45 and 75 GHz hardware; John, KJ6MZ is working on a 10 GHz Qualcomm rig; Bob, W6SYA is building a new 10 GHz rig ala Paul Wade 1999 Microwave Update; Ken, WB6DTA worked June contest from DM22 on 1296 MHz and modified some 2160 Qualcomm boards; Sam, K6VLM built a 10 GHz transverter and worked the San Diego Net from LaMirada; Dick, K6HIJ did some gas regulator work; Larry, K6HLH worked the June contest on 1.2, 2.3 and 3.4 GHz and is working on a Qualcomm 10 GHz rig; Jeff, KN6VR worked the contest on 1296 MHz and heard some new calls; Gary, W6KVC did some @ GHz ATV work and some on 10 GHz too; Dick, WB6DNX is

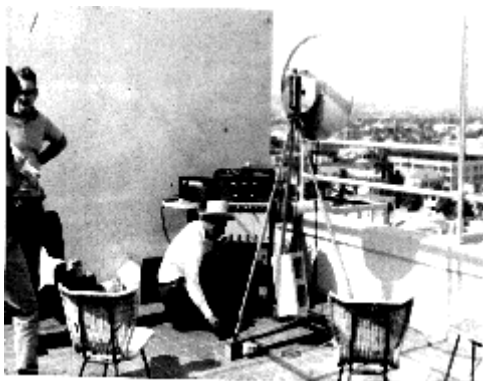
constructing a 3rd generation 10 GHz radio and had some Anderson connectors to show; Robin, WA6CDR has been working 20 KHz changes on 440 MHz; Chuck, WA6EXV has been doing some antenna testing at 2 GHz and was on the contest microwaving from Bird springs Pk with 2, 3, 5, 10 and 24 GHz rigs, he hopes to show at the picnic some NEC 24 GHz amplifiers; Bill, WA6QYR had modified a TVRO waveguide input LNA into a 3 to 4 GHz amplifier with some 40 dB gain and had his start at a 2 GHz transverter using the WB6DNX surplus hardware to show.

Hello all -I have finally updated my microwave projects web page after almost a year of inactivity. The updated pages are at <http://iacs5.ucsd.edu/~jkeyzer/projects.html>. The new additions include a page about my 24 GHz WBFM rig as well as major updates to my Qualcomm 10 GHz transverter conversion page. That rig is now working and I am finally able to check into the weekly San Diego Microwave Group net on 10 GHz after over a year of work in my spare time. My most recent activity has been in retuning the 1 watt Qualcomm PA and putting all the components together on a temporary test bed of duct tape and Plexiglas. <grin>I am now happy to be active on two microwave bands and hope to have the 10 GHz rig mounted to a dish and tripod soon. This summer I hope to participate in the 10 GHz and up contest for the first time if my work schedule allows! I am also looking for a portable 2 meter SSB rig to use for the contests. If anyone can point me towards one I would greatly appreciate an e-mail.

There are now two new documents on my webpage regarding the 24 GHz LNA project Tony and I completed last quarter. These documents are available at the following address: at <http://iacs5.ucsd.edu/~jkeyzer/projects.html> The first is a zipfile of the final report we submitted. It is a rough draft but gives a good overall description of what we did and our results. There are several .emf files, which are the full-page figures included at the end of the report. These can be viewed/printed with Irfanview among other programs. Irfanview is available at <http://www.softwarecenter.net/irfanview/English.htm>. The second file is a PowerPoint presentation we gave to a research group here at UCSD. You need Microsoft PowerPoint 97 to view it. I believe there is also a free viewer available from Microsoft.73s, Jeff KF6PBP UCSD EE Undergraduate [jkeyzer@ucsd.edu](mailto:jkeyzer@ucsd.edu).

News from Alaska: Very interesting Newsletter this month. Envy you going to Costa Mesa testing/picnic. Would love to be there. I will, however, am traveling this month to both the SARA conf. at Greenbank, WV and CSVHF at Winnipeg and hope to run into any of you going to either. Also, have my hotel and air reservations complete for Microwave Update in Philly! Currently working on 2 m and 23 cm EME stations. Made a couple UO-14 contacts this morning into OR, CA, and NV. Recently received my new LNA and converter for 1420/144 MHz and plan to have the 2.57m [100 inch] radio telescope operational at the end of July. The LNA will do dual-duty for 1296 EME once the 5m dish is up [?]. What is great news is that I may have located a 25w TWTA for 10 GHz [deal still in negotiation more later]. {This implies that 3 cm EME is getting closer to being QRV on the 2.57m dish} Regarding the 10G+ contest: I hope to have a portable Gunnplexer ready. If not for the first weekend, definitely for the second. Sept. 16-17 is the weekend of the Alaska Hamfest in Anchorage, and I am committed to putting on a 10 GHz demo [using fm or ssb: 2m rig>10G DEM xvtr/18 in dish-to-17 dB horn/Gunnplexer>28 MHz ssb Rx or 30 MHz wbfm Rx]. I also host the Amsat booth each year. If my 10 GHz beacon is up in time, the demo may include listening to it over the 90 km path. The Hamfest is located at a coastal park, recreational center looking over 30 km of water toward my home QTH. Should be a good shot. {Hmm, I don't suppose hearing a beacon counts as a contact for the contest?} BTW P3D microwave activity is "maybe" on the horizon! I will be on mode us, ls, and ux, as well as uv. [For those not aware, new Amsat mode key: v=2m, u=70 cm, l=23 cm, s=13 cm, c=6 cm, x=3 cm, k=24G]. The mode-x receiver will be DEM 10.451/144 converter [not avail. yet]. Best wishes for a great picnic and 10G+ contest! 73, Ed AL7EB, ex-K8MWA [al7eb@amsat.org](mailto:al7eb@amsat.org) ===== 50-144-432-1296 Analog Satellites. 2m-EME: FT-847-MGF1801-4xM2xpol-20 (V/H)...125w brick ...building 8877 (QRV?) 23cm-eme: DEMI xvtr & preamp-K9EK (7211)=125w-45 Loop, Soon!...OE9PMJ (TH328)=500w & 5m dish (delayed till Fall 2000?) 21cm-Radio Telescope: 2.57m dish-RAS LNA-DEMI 1420/144 conv ...move to 5m dish this fall. 13 cm: 2.57m dish...Drake LNB for 2401 Rx 7 cm-Radio Telescope: 2.57m dish-25K TVRO LNB-1296 IF3 cm-EME: 2.57m dish...DEMI xvtr & DB6NT w/g preamp ...(Rx tests Summer 2000)(Need TWTA)===== ARRL-ASM-AMSAT\*-SETI\*-SARA...\*Alaska Coordinator Hello Microwavers, An updated version of the complete article "A 10 GHz Dual

ConversionHigh Side LO Transverter from Surplus Qualcomm Omni Tracks Units" is now available on the SBMS web pages. The original article by Kerry Banke, N6IZW, was presented at the Microwave Update '99 Conference in Plano, Texas, October 1999 and published in the Proceedings of that Conference. All Figures and Photos from the article are available on the web version as well as corrections and updates since the October 1999 presentation. We hope that this material will help the many amateurs who have decided to follow this approach to a high performance 10 GHz system. The web address is: <http://www.ham-radio.com/sbms/sd/>. The updated article is in the section on "Technical Articles and Projects". 73s from Ed Munn, W6OYJ The San Diego Microwave Group [edmun@compuserve.com](mailto:edmun@compuserve.com)



Ed, W6OYJ on Long Beach Hotel with rig back in the 1950's. Photo via George, K6MBL files

If you have material you would like in the newsletter please send it to Bill WA6QYR at 247 Rebel Road Ridgecrest, CA 93555, [bburns@ridgecrest.ca.us](mailto:bburns@ridgecrest.ca.us), or phone 760-375-8566. The newsletter is generated about the 15th of the month and put into the mail at least the week prior to the meeting. This is your newsletter. SBMS Newsletter material can be copied as long as SBMS is identified as source.

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